

Chapter 11:

Solid Waste



2002 Edition

Chapter 11: Solid Waste

Introduction

The proper management of solid wastes generated from daily activities has always posed a challenge to individuals, businesses, communities, and government agencies. “Solid waste” is defined by RSA 149-M:4, XXII (“Solid Waste Management/Definitions”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-4.htm>) as *any matter consisting of putrescible material, refuse, residue from an air pollution control facility, and other discarded or abandoned material. It includes solid, liquid, semisolid or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. For purposes of this chapter, it does not include hazardous waste as defined in RSA 147-A:2; solid or dissolved materials in irrigation return flows; cut or uprooted tree stumps buried on-site with local approval if required, provided that such burial locations are not located within 75 feet of any drinking water supply; municipal and industrial discharges which are point sources subject to permits under section 402 of the federal Water Pollution Control Act, as amended; source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended; or septage or sludge as defined in RSA 485-A:2, IX-a and XI-a.* Past practices of burying these wastes indiscriminately, dumping them into ravines or onto little-used parcels of land (the “out-of-sight/out-of-mind” philosophy), or burning them in open piles at municipal facilities or in backyard burn barrels (see *Open Burning of Trash – Environmental Impacts and Safer Alternatives for “Backyard Burning”*, <http://www.des.state.nh.us/factsheets/ard/ard-33.htm>) were found to cause unintended and oftentimes long-term impacts to both human health and the environment. These impacts ranged from nuisance conditions due to smoke, odors, and vermin to major environmental contamination of New Hampshire’s air, water, and soil. It became evident that a more wide-ranging and comprehensive approach was needed to safely meet the needs of a growing population.

Solid Waste Planning

The first statewide Solid Waste Plan was created in 1973 by the Office of Solid Waste Management in the New Hampshire Division of Public Health Services (“DPHS”). Acting on this plan, the closure of open burning dumps began during the 1970s and led to the conversion of many sites to unlined landfills with little more design or sophistication than the former open dumps. This trend resulted in some direct environmental improvements (such as a reduction in toxic air emissions) and limited improvements to safeguards against contamination of the surrounding environment and its inhabitants, but the burgeoning solid waste volume soon outgrew those facilities’ capacity to accept and properly dispose of discarded materials. Some communities and businesses turned to incineration to reduce the volume of the wastes and save valuable landfill capacity. However, even properly-operating incinerators transferred much of the toxicity from the solid wastes being combusted to the air (via stack emissions) or groundwater (via leachate from the ash residue), an unintended consequence known as “cross-media transfer” of pollutants.

State Solid Waste Management Plan

In 1981, a more comprehensive **State Solid Waste Management Plan** was created through the efforts of the Governor’s Solid Waste Policy Advisory Committee, the New Hampshire Office of State Planning, and the DPHS Office of Waste Management. This new plan set forth a new administrative structure for solid waste management in New Hampshire through the establishment of solid waste districts, which were intended to achieve more efficient and comprehensive management of these wastes and provide sufficient economies-of-scale to support long-term recycling initiatives (viewed as a crucial element in effective solid waste management). It also provided for the first time an accurate inventory of solid waste volumes and estimated generation rates for each community to allow for more effective planning and cost analyses by state and local government officials. An aggressive policy was adopted to close all existing open dumps by a date-certain, and to promote resource recovery, recycling, and more protective designs for municipal combustion systems,

medical waste combustors, secure landfills, transfer station/recycling centers, and composting facilities. Finally, the new plan recommended changes to existing laws that resulted in the codification of what was first designated as RSA 149-L (later repealed) which eventually became RSA 149-M (“Solid Waste Management”, <http://gencourt.state.nh.us/rsa/html/indexes/149-M.html>). The new law carried forward the requirement first set out in RSA 147 that *[E]ach town shall either provide a facility or assure access to another approved solid waste facility for its residents. A town may choose whether to include any associated costs in its tax base* (“Solid Waste Management/Town Responsibility and Authority”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-17.htm>). Since 1981, planning efforts have revolved around assisting solid waste districts and the communities that belong to them to find ways to more efficiently recycle solid wastes at resource recovery and transfer facilities, and compost materials that are amenable to such breakdown, as well as to design, operate and maintain lined and secure land disposal facilities with appropriate closure and post-closure plans (see <http://www.des.state.nh.us/pcas>). The **State Solid Waste Plan and Report** has been updated and revised several times (and RSA 149-M has been amended, as needed) over the last two decades to report on the generation of solid wastes and compliance with the legislatively-mandated disposal hierarchy (see <http://www.des.state.nh.us/pcas/hierarchy.htm>), as well as to forecast solid waste management and capacity needs, report on state and regional trends, incorporate congressional actions and court rulings that affect solid waste decisions, outline ongoing efforts by DES and other organizations to improve solid waste management, update DES solid waste programs (*i.e.*, adjust their focus and provide sources of assistance), and report on the status of the Recycling Market Development Steering Committee established under RSA 149-O (“Recycling Market Development Steering Committee”, <http://gencourt.state.nh.us/rsa/html/indexes/149-O.html>).

Solid Waste Statistics

To properly characterize the current management of solid wastes in New Hampshire, a few facts and figures are necessary. New Hampshire is experiencing the fastest population growth rate in the northeastern United States. At present, there are more than 1.25 million residents in New Hampshire who generate more than 1.4 million tons of solid wastes each year, at an overall average generation rate of 6.4 pounds of solid waste per person per day (3.2 pounds per person per day for commercial and residential sectors only). New Hampshire's population is organized into 89 single-community solid waste districts and 23 multi-community districts (see <http://www.des.state.nh.us/pcas/pdf/sanpshot01.pdf>). New Hampshire has two waste-to-energy combustion facilities, five non-energy recovery combustion systems, three infectious medical waste incinerators, five lined (secure) landfills and nine unlined landfills, 201 transfer stations, and three construction/demolition debris processing facilities to serve the needs of residents and visitors. In 1996, the New Hampshire Legislature set a goal of 40 percent diversion of recyclable materials from the overall waste stream to be attained by the year 2000 (Solid Waste Management/Waste Reduction Goal”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-2.htm>). At present, the diversion rate stands at 24 percent. There are currently 39 communities that offer curb-side recycling programs, 36 that have “pay-as-you-throw” programs in place (see <http://www.epa.gov/epaoswer/non-hw/payt/index.htm>), and 117 that have adopted mandatory recycling. New Hampshire currently has adequate disposal capacity for solid wastes until the year 2010. There are approximately 90 solid waste haulers that collect these materials on a daily basis and deliver them to permitted facilities for separation, recycling, transfer, composting, treatment, and/or disposal.

Solid Waste Management Hierarchy

RSA 149-M:3 (“Solid Waste Management/Achieving Goals; Hierarchy”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-3.htm>) reflects the legislatively-established solid waste management hierarchy of preferred waste management or disposal practices. To ensure that disposal solutions are environmentally safe and economically sound, the New Hampshire Legislature endorsed (in order of preference) source reduction (most preferred), recycling, composting, incineration with energy recovery, incineration without energy recovery, and (least preferred) landfilling (see <http://www.des.state.nh.us/pcas/hierarchy.htm>). Source reduction refers to the design, manufacture, purchase, or use of materials to reduce their volume and/or toxicity before they enter the municipal solid waste system,

and includes product substitution and using less packaging. Source reduction also encompasses the reuse of products or packaging for other purposes, thereby lengthening the design life of the materials, reducing the need for extracting more raw materials, and postponing final disposal. Some examples of source reduction include donating food to food banks instead of throwing it away, diverting food scraps (other than meat or dairy) to backyard composting sites, reusing packing “peanuts” for other purposes, and even writing shopping lists on used envelopes instead of on virgin paper. Recycling refers to removing materials from the solid waste stream and transporting them to a processor or end-user who will make new products from them. Composting takes the organic components of solid wastes and subjects them to biological decomposition under controlled conditions. This process aerobically breaks down of shredded organic materials through microbial activities to form humus within windrow piles or in mechanical digesters, drums, or similar enclosures. Incineration of solid waste uses controlled thermal combustion (including flame combustion) to thermally break down waste or other materials (including refuse-derived fuels) to yield an ash residue that contains little or no remaining combustible material. The ash residue left over must either be reclaimed and/or ultimately disposed in a secure, lined ash monofill. Landfilling is putting solid waste into lined pits and then compacting and covering it. It is the least favored solution to solid waste disposal, in part because landfills are very expensive to build, operate, close, and monitor (both pre- and post-closure). Landfilling also usually negates any potential beneficial reuses of solid wastes and dedicates valuable acreage and disposal volume to long-term care of these decomposing materials. However, no matter how efficient the process or what percentage of solid wastes are diverted, a limited number of secure, state-of-the-art landfills still must be sited, operated, and maintained to safely dispose of the relatively small fraction of residual wastes generated by the more preferred options that is of no further economic value or beneficial use to anyone.

Solid Waste Management Bureau

The DES Solid Waste Management Bureau is responsible for most of New Hampshire’s solid waste permitting and compliance activities. This bureau is comprised of three main programs: Compliance, Financial Management, and Permitting. While each of the programs has specific responsibilities, all work is completed in a cooperative interface to ensure that issues are effectively addressed. Such work includes thoroughly reviewing design plans and specifications prior to construction, tracking and analyzing the performance of completed projects for environmental and health impacts, attempting to protect the citizens of New Hampshire from having to assume unnecessary facility closure and post-closure costs, properly addressing the risks posed by disposal of asbestos-containing materials, and distributing grant money for eligible projects in a timely way.

Solid Waste Compliance

Pursuant to authority provided by RSA 149-M:6 (“Solid Waste Management/Responsibilities”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-6.htm>), DES has the right to inspect any solid waste management facility. Formal compliance inspections are conducted at these facilities using standardized forms (see <http://www.des.state.nh.us/sw/swinspections.htm>) from which a report is generated that highlights conditions or practices at the facility that may need more attention to achieve and maintain full compliance with all relevant laws and rules. The Compliance Program for the DES Solid Waste Management Bureau focuses on ten specific areas: water quality, gas generation rates (primarily for landfills), dioxin/furan generation (primarily for incineration systems), settlement data (for land disposal facilities and closed landfills), erosion reports (landfill caps), waste receipt information (for assessing the adequacy of long-term disposal capacity), capacity utilization (for public benefit and design life requirements), operation reports (assessment of compliance status and operational issues), complaints (for facility performance evaluation and as potential harbingers of future problems), and cover assessments at asbestos disposal sites (to eliminate exposure of friable asbestos fibers to the public which could lead to inhalation and disease). The authority to issue penalties and enforcement actions is provided by RSA 149-M:15 (“Solid Waste Management/Penalties and Other Enforcement”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-15.htm>) and RSA 149-M:16 (“Solid Waste Management/Administrative Fines”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-16.htm>).

Permitting and Design Review

The Permitting and Design Review Section of the DES Solid Waste Management Bureau carries out a variety of different duties related to proper solid waste management. They include reviewing permit applications for new or expanding solid waste management facilities, providing technical construction oversight and engineering functions for the entire solid waste program, providing assistance relative to the management of specific wastes (such as asbestos-containing materials, certified waste-derived products, ash residue from incineration systems, contaminated soil and other environmental media, infectious waste, and used tires), and participating in discussions of potential legislative changes to RSA 149-M. RSA 149-M:9, I provides that *no person shall construct, operate, or initiate closure of a public or private [solid waste] facility without first obtaining a permit from the department* (“Solid Waste Management/Permit Required”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-9.htm>). The permit structure that has been developed by DES for solid waste management activities ranges from a “permit-by-notification” (i.e., simply notifying DES of the operation, available for certain types of transfer stations and recycling facilities) to application for the Solid Waste Standard Permit which requires in-depth technical analyses, proof of a public benefit by the facility pursuant to RSA 149-M:11 (“Solid Waste Management/Public Benefit Requirement”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-11.htm>), background checks of the applicants by the New Hampshire Department of Justice, and an analysis of financial assurance data. Application review is tied to a timeline to ensure efficient processing. The application first is examined for administrative completeness (i.e., to make sure that all of the required components have been submitted), then undergoes a technical completeness assessment. Next, public comments are collected or a public hearing is scheduled in the locality of the proposed facility, and finally a decision to issue or deny the permit is made and conveyed to all interested parties. The length of time it takes to reach a decision is directly related to the quality and completeness of the initial application materials. In addition to Standard Permits, the DES Solid Waste Management Bureau processes applications for Solid Waste Permits-by-Notification, Solid Waste Research and Development Permits, Solid Waste Emergency Permits, and a Waste-Derived Product Certifications.

Landfill Closure Program

The DES Solid Waste Management Bureau, through its Landfill Closure Program, performs the analyses necessary to support the permanent closure of existing solid waste facilities, mostly unlined landfills, that pose an immediate or ongoing threat to public health or the environment, or simply have exhausted their useful design lives (see <http://www.des.state.nh.us/sw/swclosure.htm>). Program staff oversee landfill cap installation projects, landfill removal projects (including site restoration), and the long-term maintenance and monitoring programs associated with such actions. Landfill closure often requires other DES permits such as those for wetlands protection, erosion control, storm water management, air emissions control, and long-term groundwater monitoring. Many commercial and municipal incinerators used for treating solid wastes for volume reduction also have reached the end of their useful design life, and have been closed and decommissioned through this process. After closure is complete, annual facility reports are required from the owners of closed landfills in March of each year (see <http://www.des.state.nh.us/sw/swpostclosure.htm>). The data in these reports are used to assess performance of the closure system, establish remediation needs, and assess progress toward stabilization of the landfill mass as the wastes decompose over time. These reports also are used to determine if and when the owner may be allowed to reduce the frequency of monitoring activities or to eliminate them altogether. Over the past ten years, more than 90 municipally-owned, unlined solid waste landfills have been closed and are presently being subjected to post-closure monitoring activities, in accordance with DES specifications. Twenty-six more unlined landfills have been in the queue for closure during 2002 (see <http://www.des.state.nh.us/sw/fy02list.pdf>).

Financial Assistance

Financial assistance in the form of both grants and low-interest loans is available to municipalities to cover a portion of the expenses for closing certain solid waste facilities (see <http://www.des.state.nh.us/sw/swfinancial.htm>). The Grants Management Program within the DES Solid Waste Management Bureau processes applications and distributes state funds for closure of municipally-owned, unlined landfills and the municipal incinerators identified by the New Hampshire Legislature in RSA 149-M:42, IV ("Solid Waste Management/Aid to Municipalities for Closure of Unlined Solid Waste Landfills and Certain Municipal Incinerators/Definitions", <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-42.htm>). The State Landfill Closure Program was established by the New Hampshire Legislature to be effective beginning in 1995. In 1999, the law was amended to expand the closure grant program to address the needs of 18 municipal incinerators constructed prior to July 1, 1998. Each year, DES holds a public hearing to receive comment on the current state fiscal year priority closure list of landfills and incinerators (see <http://www.des.state.nh.us/sw/fy02list.pdf>). The draft closure lists for fiscal years 2003 (see <http://www.des.state.nh.us/sw/fy03list.pdf>) and 2004 (see <http://www.des.state.nh.us/sw/fy04list.pdf>) are available, as is the extended priority list (see http://www.des.state.nh.us/sw/extended_list.pdf). The purpose of the closure grants program is to reimburse municipalities for 20 percent of eligible capital costs associated with landfill and/or incinerator closures. Eligible capital costs include hydrogeological and engineering investigation and design, construction of closure elements in accordance with plans approved by DES, and construction supervision. Eligible costs do not include land acquisition (except for land that is necessary to the physical elements of closure); administrative, legal, and fiscal costs; or costs for post-closure monitoring and maintenance. The application forms and instructions for those who wish to apply for a landfill or incinerator grant (see <http://www.des.state.nh.us/sw/landfill.pdf> and <http://www.des.state.nh.us/sw/incinerator.pdf>, respectively) are provided by DES. Since the program's inception, the Governor and Executive Council have awarded 108 grants totaling more than \$24 million, with over \$14.4 million paid to municipalities in reimbursements through July 1, 2002.

The State Revolving Fund ("SRF") Loan Program (see <http://www.des.state.nh.us/www/srf.htm>) is a low-interest loan program designed to assist communities with the design and construction of eligible drinking water system and wastewater system projects, as well as unlined landfill closures, based on specific criteria ("Solid Waste Management/Aid to Municipalities for Closure of Unlined Solid Waste Landfills and Certain Municipal Incinerators/Priorities", <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-49.htm>). The requirements for obtaining a State Revolving Fund loan generally are the same as those for the State Aid Grant Program (see <http://www.des.state.nh.us/www/grants.htm>) established under RSA 486 ("Aid to Municipalities for Water Pollution Control", <http://gencourt.state.nh.us/rsa/html/indexes/486.html>), except that obtaining an SRF loan for construction also requires the use of federal wage rates and the solicitation of services from minority business enterprises and women's business enterprises ("MBE/WBE", <http://www.des.state.nh.us/wseb/dbe.htm>) for participation in the project (see <http://webster.state.nh.us/dot/humanresources/docs/DBEdirectory.pdf>). The loan program is administered by the DES Wastewater Engineering Bureau under NH CODE ADMIN. RULES Env-C 500 (see <http://www.des.state.nh.us/rules/env500.pdf>). For a more complete description of all DES grant and loan programs, please review the brochure entitled **Grants and Loans from the New Hampshire Department of Environmental Services** or access the information online at http://www.des.state.nh.us/grants_loans.htm.

Financial Assurance

The Financial Assurance Program within the DES Solid Waste Management Bureau was formed to implement the portion of RSA 149-M:9, X ("Solid Waste Management/Permit Required", <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-9.htm>) that directs DES to require evidence of financial responsibility prior to issuing a permit. The program works with applicants and permit holders to ensure that all permitted solid waste facilities have sufficient funding available to close when business operations cease or their design lives are exhausted (see <http://www.des.state.nh.us/sw/swassurance.htm>). DES's administrative

rules pertaining to this requirement are found in NH CODE ADMIN. RULES Env-Wm 3100 (“Solid Waste Rules/Financial Assurance”, <http://www.des.state.nh.us/rules/swrules.pdf>). Financial assurance is required for all solid waste management facilities except for permit-exempt facilities, permit-by-notification facilities, facilities for which the closure cost estimate is \$3,000 or less, emergency permit facilities, and limited private non-landfill facilities. The amount of financial assurance needed is calculated based on representative current market rates for having a third party perform all required closure and post-closure activities at the point in the facility’s active life when the extent and manner of facility operations, in compliance with permit conditions and all applicable laws and rules, makes closure the most expensive [see Env-Wm 3101.02(b)]. DES offers a cost-estimate form to assist in determining the closure cost for a specific type of facility (see <http://www.des.state.nh.us/sw/estimate.htm>). Financial assurance can be obtained by using one or more of a variety of financial mechanisms. DES has specific wording requirements for these documents and provides “models” for use in meeting the financial assurance obligations for a facility (see <http://www.des.state.nh.us/sw/swmodeldocs.htm>).

Solid Waste Facility Operator Training Program

RSA 149-M:9, VI prohibits any person who has not obtained the appropriate certification from DES from operating a public or private solid waste facility (“Solid Waste Management/Permit Required”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-9.htm>). The Planning and Community Assistance Section of the DES Waste Management Division Planning Bureau operates a certification program to train the operators of solid waste facilities in the proper techniques and practices required to safely and efficiently handle solid wastes. The DES Solid Waste Operator Training Program (see <http://www.des.state.nh.us/pcas/opcert.htm>) addresses the training and certification needs of more than 1,000 operators who work at landfills, transfer stations, recycling centers, and composting facilities throughout New Hampshire. The program’s goal is to enhance environmental protection, public health, and safety through education. It is designed to train those who are not currently certified, those who hold interim certification, and those who would like to upgrade their existing certification. Knowledge gained while attending these training sessions helps participants to attain the skills and knowledge necessary to safely and efficiently operate and manage state-of-the-art solid waste management facilities.

The program offers certification at four levels: Level IV (Operator/Manager), Level III (Advanced Operator), Level II (Operator), and Level I (Attendant).

- A certified Level IV operator/manager is qualified to be in responsible charge for such operations as a secure landfill or an incinerator ash landfill (“Level IV Facility”), a transfer station, recycling facility, or a composting operation that receives 30 tons or less of waste per day on average annually (“Level III Facility”), a commercial brush or stump processing or disposal facility (“Level II Facility”), or a permit-by-notification facility having an active design life of 90 days or less (“Level I Facility”), and may assume supervisory responsibilities.
- A certified Level III advanced operator is qualified to be in responsible charge for such operations as a Class I incinerator (*i.e.*, a combustor unit designed to burn solid waste for volume reduction under controlled conditions) (“Level III Facility”), a monofill for brush and stumps only (“Level II Facility”), or a permitted research and development facility (“Level I Facility”), and may assume supervisory responsibilities.
- A certified Level II operator is qualified to be in responsible charge for such operations as a monofill for stumps and brush (“Level II Facility”) or an emergency permit facility (“Level I Facility”), but not assume any supervisory responsibilities.
- A certified Level I attendant, and a Level I attendant-in-training, may work at, but not be in responsible charge at any solid waste facility.

To receive certification, an applicant must meet the education and experience qualifications, apply to take the written examination administered by DES, attend training sessions, and successfully complete the

examination with a score of 70% or better. Certification is valid for one year from the date of issuance. Each applicant for renewal must participate in an approved operator training update program prior to seeking certification renewal. If a certificate-holder allows his or her certification to lapse for more than 90 days, the regular certification process must be successfully repeated to regain certification status. All solid waste facilities must have a manager certified at the appropriate level and there must be at least one supervisor at the facility for every one to five operators. All personnel in a supervisory position must hold (at a minimum) a Level III (Advanced Operator) certification. During operating hours at the facility, no fewer than 50 percent of the on-site personnel directly involved with solid waste management activities must be certified operators. The certificates for all staff must be prominently displayed at the solid waste facility.

Summary

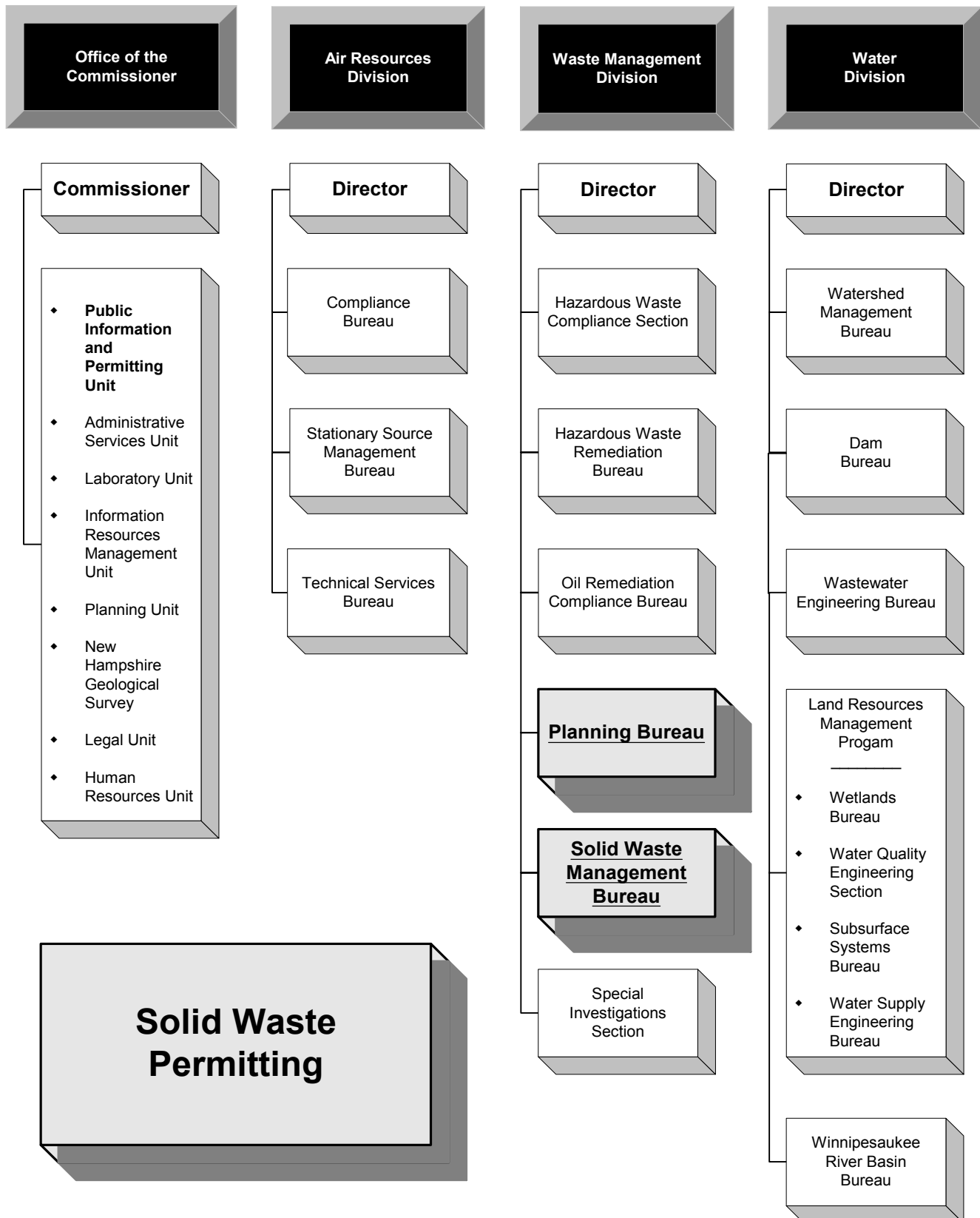
In summary, the compliance, financial management, and permitting of solid waste facilities in New Hampshire is primarily administered by the Solid Waste Management Bureau of the DES Waste Management Division. The Waste Management Division's Planning Bureau provides much of the education and outreach services necessary to support the operation of state-of-the-art facilities. Appeals of these programs' decisions or orders issued for violations of program requirements should be directed to the Waste Management Council (see <http://www.des.state.nh.us/councils/#waste>).

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Organizational Chart

New Hampshire Department of Environmental Services



Solid Waste Standard Permit

Introduction: RSA 149-M:9, I (“Solid Waste Management/Permit Required”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-9.htm>) provides that *No person shall construct, operate, or initiate closure of a public or private facility without first obtaining a permit from the department [DES].* RSA 149-M:9, II provides that *It shall be unlawful to transport solid waste to, or to dispose of solid waste at, any facility other than an approved facility.* One type of permit available under the permit structure established by DES to implement these provisions is the Solid Waste Standard Permit. A Standard Permit is required for proposals to design, construct, and operate new public or private facilities (or major expansions of existing ones) which will receive municipal solid wastes, construction and/or demolition debris, contaminated environmental media (e.g., soils, vegetation, etc.), and/or non-hazardous industrial wastes for storage, processing, treatment, separation, and/or disposal. Types of facilities that require this permit include double-lined landfills, transfer stations, municipal solid waste combustors, resource recovery facilities, infectious waste incinerators, and large composting operations that receive 30 tons or more of solid wastes per day and are designed to operate for more than 90 days. A Standard Permit also is required for facilities that accept solid wastes other than recyclables from other states, territories, or countries. Applications for the Solid Waste Standard Permit must include a site report, plans and specifications, an operating plan, a closure plan, a financial report, a demonstration that the facility will provide a substantial public benefit as required by RSA 149-M:11 (“Solid Waste Management/ Public Benefit Requirement”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-11.htm>), and a performance history. The performance history must include a thorough description of the applicant’s personal and business dealings for delivery to the New Hampshire Department of Justice to serve as the basis for a background investigation by the New Hampshire Department of Justice of the applicant’s personal history (*Personal History Disclosure Form*, http://www.des.state.nh.us/sw/personal_disclosure.doc) and business history (*Business Concern Disclosure Statement*, http://www.des.state.nh.us/sw/business_disclosure.doc). The application process involves evaluating the application materials, including technical, financial, and legal data; receiving public input; and issuing a final decision.

Average number of permits issued annually: 4 (or fewer)

Fees: Sliding scale for facility function, size, and life expectancy, ranging from \$2,000 to \$35,000 per facility

Estimated processing time after application is deemed “complete”: Review time for an application deemed complete typically extends for 120 days. However, actual elapsed time is highly dependent upon facility complexity and application quality. A final decision cannot be made within 30 days or less following a public hearing.

Permit duration: Indefinite

Permit transferability: The DES Solid Waste Standard Permit is transferable by using a Type IV permit modification form to *Transfer a Solid Waste Management Facility Permit* (see http://www.des.state.nh.us/sw/modifications_permit.htm). The fee for transfer is \$1,000.

Permit modification: Application for a Type I-a, I-b, III, IV, or V permit modification will provide the information needed to make a decision concerning the modification of a DES Solid Waste Standard Permit, depending on the changes sought. Fees range from no fee for Types III, V, and most Type II modifications to a prorated fee for construction plan approval of new landfill phases within an already-permitted “footprint” (see http://www.des.state.nh.us/sw/modifications_permit.htm).

Permit renewal: Solid Waste Standard Permits do not expire. If a permit has been retired or revoked, a new permit is required prior to reactivating solid waste activities at the site.

State statute: RSA 149-M:9 (“Solid Waste Management/Permit Required”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-9.htm>)



N. H. Code of Administrative Rules: Env-Wm 314 (“Solid Waste Rules/Standard Facility Permitting Provisions”, <http://www.des.state.nh.us/rules/swrules.pdf>)

Appeals body: Waste Management Council at RSA 21-O:9 (“Department of Environmental Services/Waste Management Council”, <http://gencourt.state.nh.us/rsa/html/l/21-O/21-O-9.htm>; see also <http://www.des.state.nh.us/rules/env-wmc200.pdf> and <http://www.des.state.nh.us/councils/#waste>)

Additional Information: N. H. DES, Solid Waste Management Bureau, (603) 271-2925
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876

Solid Waste Standard Permit – Work Sheet

Key Qualifier Question: Will the facility receive solid wastes and not qualify as a facility type that can be permitted through the DES solid waste permit-by-notification, emergency permit, or research and development application process (see <http://www.des.state.nh.us/sw/swpermits.htm>)?

What must you do to apply?

- Obtain a copy of the application for a *Standard Permit for a Solid Waste Landfill*, *Standard Permit for a Solid Waste Processing/Treatment Facility*, or *Standard Permit for a Solid Waste Collection/Storage/Transfer Facility* from the DES Solid Waste Management Bureau, DES Public Information Center, or online at http://www.des.state.nh.us/sw/standard_permits.htm.
- Provide a complete description of the facility including its designated name, the type of facility (e.g., double-lined landfill, processing center, etc.) and whether it is proposed or existing and public or private, its location by street number and municipality, its mailing address, the tax map and lot number(s) of the property on which the facility is or will be sited, a deed reference to the current owner, latitude/longitude, written (referenced) directions to the facility, and plot plan depicted on a 7½-minute U. S. Geological Survey map (see <http://www.topozone.com>).
- Provide the name(s), telephone number(s), and mailing address(es) for the facility applicant, owner, and operator.
- Provide a list of all DES permits issued to the facility, and include a status update on each one (see http://www.des.state.nh.us:1522/des/onestop.des_menu.show).
- Describe the facility service type and whether the geographic service area will be “limited” or “unlimited”.
- Describe the types of waste to be received and processed, as well as the storage capacity, processing or treatment capacity, and disposal capacity (expressed in tons or cubic yards), and define the facility “footprint” (in acres).
- Notify all abutters, the host community, the host solid waste district, and any other affected entities.
- Provide a copy of the written notification letter sent to abutters, a list of all required recipients, and copies of the signed registered letter receipts or signed acknowledgements of receipt.
- If the applicant is not the property owner, provide a copy of all legal notification and agreement documents to demonstrate that use of the property for its intended purpose is allowed and that compliance with all applicable requirements will be maintained.
- Prepare a site report to demonstrate compliance with applicable state and federal siting criteria:
 - State: NH CODE ADMIN. RULE Env-Wm 314.02(a), “Solid Waste Rules/Standard Facility Permitting Provisions”, <http://www.des.state.nh.us/rules/swrules.pdf>;
 - Federal: “Resource Conservation and Recovery Act” of 1976, 42 U. S. C. Subchapter I, <http://www4.law.cornell.edu/uscode/42/ch82.html> and Code of Federal Regulations, Title 40, Chapter I, Part 258 at http://www.access.gpo.gov/nara/cfr/cfrhtml/00/Title_40/40cfr258_00.html; see also DES Fact Sheet *Federal Criteria for Municipal Solid Waste Landfills (40 CFR Part 258, Subtitle D of RCRA)* at <http://www.des.state.nh.us/factsheets/sw/sw-21.htm>
- Provide plans and specifications for the facility in accordance with Env-Wm 2803.05, including an operating plan, residual waste management plan, facility maintenance, inspection, and monitoring plan (see <http://www.des.state.nh.us/sw/swinspections.htm>), contingency plan, employee-training program (see <http://www.des.state.nh.us/pcas/opcert.htm>), and record keeping and reporting procedures (“Solid Waste Management/Responsibilities”, <http://gencourt.state.nh.us/ras/html/X/149-M/149-M-6.htm>).
- Prepare a financial report that specifies the estimated cost of constructing the facility, type and source of funding, estimated operating costs, estimated tipping fees or average cost per ton to manage the waste, estimated closure cost (see <http://www.des.state.nh.us/sw/swclosure.htm>) and the cost of post-closure monitoring (see <http://www.des.state.nh.us/sw/swpostclosure.htm>) and

<http://www.des.state.nh.us/sw/swfinancial.htm>), and the administration of a financial assurance plan (see <http://www.des.state.nh.us/sw/swassurance.htm>).

- Submit personal/business disclosure information to the New Hampshire Department of Justice for a background check (see http://www.des.state.nh.us/sw/personal_disclosure.doc, *DES Personal History Disclosure Form*, and http://www.des.state.nh.us/sw/business_disclosure.doc, *DES Business Concern Disclosure Statement*).
- Provide a demonstration that the facility will provide a substantial public benefit to the solid waste management needs of citizens of New Hampshire, as required by RSA 149-M:11 ("Solid Waste Management/Public Benefit Requirement", <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-11.htm>).
- Calculate the appropriate fee (as outlined on the application form) and submit three copies of the application (each with original signatures), the fee, and all supporting materials to: Permitting and Design Review Section, Waste Management Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-2925; fax: (603) 271-2456; or online: <http://www.des.state.nh.us/sw/>

What types of projects require this permit?

- ❖ A new double-lined landfill or transfer station that receives municipal solid wastes or construction and demolition debris
- ❖ An incinerator that will burn any solid wastes (such as medical waste) that are not certified as a "fuel"
- ❖ Any facility that receives asbestos or other non-hazardous industrial wastes

If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at tdrew@des.state.nh.us or at (603) 271-3306.

Solid Waste Emergency Permit

Introduction: Occasionally, conditions involving a solid waste arise that require an immediate action to control a potential threat to public health and safety or the environment. DES has a Special Investigations Section (“SIS”) (see <http://www.des.state.nh.us/sis/>) which can provide assistance in situations where an expedited response is needed to protect public health and safety or the environment. Such situations include the need to dispose of debris from a major storm, flood or other natural disaster; the need to divert wastes from a solid waste facility that has unexpectedly shutdown; and the need to clean up accidental spills/releases and temporarily hold the wastes at a safe location pending further treatment or disposal. The DES Solid Waste Emergency Permit was created for situations that require the separation, stabilization, segregation, consolidation, or other emergency management of solid wastes exposed to uncontrolled conditions, and may be used to allow a closed solid waste landfill or transfer station to re-open or operate outside normal work hours on a limited basis to protect against unnecessary risks to the general public or environment posed by exposed infectious wastes, asbestos containing materials, oily debris, or other wastes. Final treatment, storage, or disposal at a permitted facility can be arranged later, after the emergency conditions have subsided. The selection and operation of a temporary storage or treatment site for emergency purposes should be reviewed and closely coordinated with the local code enforcement officer and/or fire chief. (See http://www.des.state.nh.us/emergency_response.htm)

Average number of permits issued annually: 1 (or fewer)

Fees: None

Estimated processing time after application is deemed “complete”: This permit is issued orally by the Director of the DES Waste Management Division once it has been determined that a true emergency exists; written permit is issued within ten working days.

Permit duration: The Solid Waste Emergency Permit remains in effect as long as the need is justified, and as identified in the original application.

Permit transferability: The Solid Waste Emergency Permit is transferable through the submission to DES of a *Type IV Permit Modification* form and fee (see http://www.des.state.nh.us/sw/modifications_permit.htm)

Permit modification: Usually not applicable for an emergency permit

Permit renewal: Not applicable

State statute: RSA 149-M:9 (“Solid Waste Management/Permit Required”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-9.htm>)

N. H. Code of Administrative Rules: Env-Wm 313 (“New Hampshire Solid Waste Rules”, <http://www.des.state.nh.us/rules/swrules.pdf>)

Appeals body: Waste Management Council at RSA 21-O:9 (“Department of Environmental Services/Waste Management Council”, <http://gencourt.state.nh.us/rsa/html/I/21-O/21-O-9.htm>); see also <http://www.des.state.nh.us/rules/env-wmc200.pdf> and <http://www.des.state.nh.us/councils/#waste>)

Additional Information: N. H. DES, Solid Waste Management Bureau, (603) 271-2925
N. H. DES, Special Investigations Section, (603) 271-3899
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876

Solid Waste Emergency Permit – Work Sheet

Key Qualifier Question: Does an emergency situation exist that requires the collection, consolidation, segregation, storage, or similar management of solid wastes in circumstances where no readily available mechanism to respond to the situation is available, and where a delayed response will likely pose an unnecessary or excess risk to public health, safety, and/or the environment?

(See http://www.des.state.nh.us/emergency_response.htm)

What must you do to apply?

- After assessing the situation, the applicant (or affiliated person with first-hand knowledge of the circumstances) should contact the DES Waste Management Division at **(603) 271-2900** and describe the nature of the emergency, the types of wastes involved, what action is desired, and the estimated schedule to carry out the response. The DES Special Investigations Section (“SIS”) can be reached by telephone at **(603) 271-3899**, or may be contacted online at <http://www.des.state.nh.us/sis/>.
- Based on this pre-application contact and description, DES will make a preliminary determination of whether or not a Solid Waste Emergency Permit is warranted. If it is determined that the Emergency Permit is warranted, the applicant must submit the required application information on letterhead.
- Provide identification of the parties involved.
- Identify the facility where the emergency conditions exist.
- Provide a description of the emergency conditions that pose the threat to public health, safety, or the environment, including an explanation of the cause of the emergency conditions.
- Provide a certification from the local health officer or fire chief that the conditions do pose a threat to public health, safety, or the environment; or, if such certification cannot be obtained, provide a statement that such certification was sought and an explanation as to why the certification was refused.
- Provide a description of the activity proposed to address the emergency conditions and information to demonstrate that the activity will comply with all applicable permitting requirements.
- Provide a description of any post-activity monitoring proposed.
- The application letter and all supporting information must be signed by the applicant (in accordance with NH CODE ADMIN. RULE Env-Wm 303, see <http://www.des.state.nh.us/rules/swrules.pdf>) and submitted in triplicate to: Director, Waste Management Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-2900; fax: (603) 271-2456; or online: <http://www.des.state.nh.us/sw>

What types of projects/incidents qualify for issuance of this permit?

- ❖ Emergency operation of a centralized burial location for dead animals
- ❖ Repair of a landfill liner or capping system severely damaged by a major storm
- ❖ The cleanup of a petroleum spill or exposed asbestos waste deposits and resulting debris
- ❖ Emergency operation of solid waste transfer stations, processing facilities, or centralized demolition debris collection centers to handle the immediate influx of wastes generated by the emergency

If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at tdrew@des.state.nh.us or at (603) 271-3306.

Solid Waste Permit-by-Notification

Introduction: Some solid waste management facilities, due to their size or types of wastes handled, pose little threat to public health, safety, or the environment. These facilities do not require the same degree of scrutiny as do those that qualify for the DES standard permitting process. The DES Solid Waste Permit-by-Notification is designed as a streamlined process through which the applicant simply notifies DES of the facility's existence and agrees to conform to relevant criteria set forth in NH CODE ADMIN. RULES Env-Wm 311 ("Solid Waste Rules/Permit-by-Notification Requirements") and Env-Wm 2900 ("Solid Waste Rules/Permit-By-Notification Facility Requirements", <http://www.des.state.nh.us/rules/swrules.pdf>) for its proper construction, operation, monitoring, and maintenance. The DES Waste Management Division has created seven different permits-by-notification, for limited public solid waste transfer station/recycling facilities, small food waste composting facilities, certified waste-derived product processing facilities (using non-select recyclable materials), collection centers for select recyclables, scrap metal recycling centers, truck transfer stations, and infectious waste treatment facilities/incinerators (see http://www.des.state.nh.us/sw/notification_permit.htm). To qualify for one of these permits-by-notification, the facility must match the criteria specified in the **Solid Waste Rules exactly**. If the facility cannot match the criteria, an alternative track may be to apply for a DES Solid Waste Standard Permit. Facilities operating with a permit-by-notification cannot receive in excess of 30 tons of solid wastes per day and cannot receive out-of-state wastes, except for recyclables.

Average number of permits issued annually: 10

Fees: None

Estimated processing time after application is deemed "complete": 30 days

Permit-by-Notification duration: Indefinite

Permit-by-Notification transferability: A Solid Waste Permit-by-Notification facility cannot be transferred to a new owner, except for landfill transfers occurring automatically [see Env-Wm 2902.06(d)]. In all other cases, a transferred permit-by-notification facility must, for administrative purposes, be deemed a new facility and the new owner must obtain a permit as though the facility were new if operations continue after the property transfers.

Permit-by-Notification modification: A Solid Waste Permit-by-Notification for any of the types noted above can be modified in a similar fashion to the Types I-V modification processes for a Solid Waste Standard Permit (see http://www.des.state.nh.us/sw/modifications_permit.htm). However, a permit-by-notification cannot be modified in such a way as to no longer comply with the pre-set criteria for the permit type (e.g., a modification request cannot seek to increase a facility's waste inflow to exceed 30 tons per day).

Permit-by-Notification renewal: A permit-by-notification does not expire. If a permit has been retired or revoked, a new permit is required prior to reactivating solid waste activities at the site.

State statute: RSA 149-M:9 ("Solid Waste Management/Permit Required", <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-9.htm>)

N. H. Code of Administrative Rules: Env-Wm 311 and 2900 ("Solid Waste Rules/Permit-By-Notification Facility Requirements", <http://www.des.state.nh.us/rules/swrules.pdf>)

Appeals body: Waste Management Council at RSA 21-O:9 ("Department of Environmental Services/Waste Management Council", <http://gencourt.state.nh.us/rsa/html/I/21-O/21-O-9.htm>; see also <http://www.des.state.nh.us/rules/env-wmc200.pdf> and <http://www.des.state.nh.us/councils/#waste>)

Additional Information: N. H. DES, Solid Waste Management Bureau, (603) 271-2925
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876

Solid Waste Permit-by-Notification – Work Sheet

Key Qualifier Question: Will the proposed facility accept less than 30 tons per day of in-state solid wastes or include recyclables (only) from out-of-state sources and exactly match the permit-by-notification requirements found in NH CODE ADMIN. RULES Env-Wm 2107, 2207, 2307, or 2407 (see <http://www.des.state.nh.us/rules/swrules.pdf>)?

What must you do to apply?

- Obtain a copy of the *Permit-by-Notification Application* from the DES Solid Waste Management Bureau, DES Public Information Center, or online at http://www.des.state.nh.us/sw/notification_permit.htm. Several types of facilities may qualify for this permit, so be sure to specify the type of operation.
- Provide the name(s), address(es), and telephone number(s) of those who will construct/own/operate the facility.
- Identify the facility by name and its type of operation.
- Provide the dates that facility construction and operations are scheduled to commence.
- Estimate the active life expectancy and design capacity of the facility.
- Prepare a facility site plan, drawn to scale and referenced to a fixed point on a U. S. Geological Survey topographical map (see <http://www.topozone.com>), that shows the parcel of land where the facility will be located, the property boundaries, access points, rights-of-way or easements, restricted or protected areas or features, above- and below ground structures and utilities such as underground tanks, wells, waterlines, septic systems, sewer lines, power lines, communication lines, and fuel lines. Show all surface waters and wetlands, the proposed facility's waste handling areas, waste storage areas, and (for landfills) the vertical and lateral limits of the proposed waste disposal area and a detail of the cap profile. Include a dimensioned line showing all required setbacks for the facility with adjacent land uses. A registered professional engineer licensed to practice in the state of New Hampshire (see <http://www.state.nh.us/jtboard/pe.htm>) must stamp the design plans if the facility will be operated for more than 90 days, or when otherwise required by RSA 310-A ("Professional Engineers, Architects, Land Surveyors, Professional Geologists, and Natural Scientists", <http://gencourt.state.nh.us/rsa/html/indexes/310-A.html>).
- If the facility is located on property subject to an enforcement action or if it lies within a groundwater management zone, provide evidence that demonstrates compliance with all rules and permits (see http://www.des.state.nh.us:1522/des/onestop.des_menu.show).
- For facilities that will operate longer than 90 days, prepare an operating plan and a closure plan.
- File a copy of the completed application with the local community, pursuant to the requirements of RSA 541-A:39 ("Administrative Procedure Act/Notice to Municipalities", <http://gencourt.state.nh.us/rsa/html/LV/541-A/541-A-39.htm>), and with the host solid waste management district.
- Notify all abutters concerning the proposed facility and its operations.
- Provide a signed certification ("compliance statement") with the application stating that the facility will be operated in conformance with all pertinent federal, state, and local requirements, and that all personnel will be trained and knowledgeable concerning these requirements and practices.
- Sign four copies of the application and provide three legal-sized, postage-paid envelopes bearing no return address and addressed in capital letters to the applicant, the host municipality, and the host solid waste management district.
- Submit the application form, plans, and all other supporting materials to: Permitting and Design Review Section, Waste Management Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-2935; fax: (603) 271-2456; or online: <http://www.des.state.nh.us/sw/>

What types of projects require this permit-by-notification?

- ❖ Limited public transfer stations and truck transfer stations
- ❖ Collection centers for select recyclables and scrap metal collection and recycling centers
- ❖ Health care facility-owned infectious waste treatment facilities or incinerators
- ❖ Processing and treatment facilities for producing certified waste-derived products
- ❖ Small food waste composting facilities
- ❖ For more examples, please refer to NH CODE ADMIN. RULES Env-Wm Env-Wm 2107, 2207, 2307, and 2407 (see <http://www.des.state.nh.us/rules/swrules.pdf>)

If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at tdrew@des.state.nh.us or at (603) 271-3306.

Solid Waste Research and Development Permit

Introduction: As with any field of endeavor, experimentation with new concepts, techniques, and practices forms the basis for developing safer, more efficient, and more environmentally-friendly components of the solid waste management system in New Hampshire. Entrepreneurs, industry specialists, research institutions, and facility owner/operators are directly exposed to the limits of existing equipment, facilities, and services that often could benefit from the infusion of new and innovative ideas, which then could be transferred to others in the industry facing similar challenges (see <http://www.des.state.nh.us/hwrb/hwrbinnov.htm>). DES has created the Solid Waste Research and Development Permit to harness those creative energies, support research to develop new concepts, and provide the mechanism through which they can be performance-tested before being applied commercially. This permit is not required for conducting bench-scale research and development projects within a building or other location used for research studies, as long as the practices undertaken comply with the universal facility requirements listed in NH CODE ADMIN. RULES Env-Wm 2700 ("Solid Waste Rules/Universal Facility Requirements", <http://www.des.state.nh.us/rules/swrules.pdf>). Funding for a project must come from public or private research grants, distributed after submission of a written proposal to DES describing the scope of the project. A government agency or research institution (such as a public or private university) must conduct or supervise the project and must comply with all pertinent **Solid Waste Rules** (specifically, Env-Wm 2100-2800). The University of New Hampshire currently supports several specialty research projects through its Environmental Research Group (see <http://www.unh.edu/erg>) and its Recycled Materials Resource Center (see <http://www.rmrc.unh.edu/>). The Solid Waste Research and Development Permit will be issued for a limited time period, not to exceed that needed to complete the studies, and will include the time needed to complete any closure activities related to the project or facility. Examples of prior projects that have received this permit include investigations into re-circulating leachate as a treatment technique at a double-lined landfill, mixing of municipal solid waste combustor ash as aggregate in asphalt for a public street, and using coal ash in lightweight concrete.

Average number of permits issued annually: 4 (or fewer)

Fee: Sliding scale, starting at \$1,000

Estimated processing time after application is deemed "complete": Review time is generally 120 days. However, actual elapsed time is highly dependent on facility complexity and application quality.

Permit duration: Limited to the study period identified in the application

Permit transferability: The Solid Waste Research and Development Permit is transferable by submitting the *Type IV Permit Modification* form and fee (see http://www.des.state.nh.us/sw/modifications_permit.htm).

Permit modification: Filing an application for modification can modify the Solid Waste Research and Development Permit. There are six types of modification: Type I-a, I-b, II, III, IV, and V, depending upon the type and extent of change. Application costs range from no fee (for Types III, V, and most Type II) to as much as \$20,000 for a Type I-a modification (see http://www.des.state.nh.us/sw/modifications_permit.htm).

Permit renewal: Not applicable

State statute: RSA 149-M:9 ("Solid Waste Management/Permit Required", <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-9.htm>)

N. H. Code of Administrative Rules: Env-Wm 312 ("New Hampshire Solid Waste Rules/Research and Development Projects Permitting Provisions", <http://www.des.state.nh.us/rules/swrules.pdf>)

Appeals body: Waste Management Council at RSA 21-O:9 ("Department of Environmental Services/Waste Management Council", <http://gencourt.state.nh.us/rsa/html/I/21-O/21-O-9.htm>; see also <http://www.des.state.nh.us/rules/env-wmc200.pdf> and <http://www.des.state.nh.us/councils/#waste>)

Additional Information:

N. H. DES, Solid Waste Management Bureau, (603) 271-2925

N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876

U. N. H., Environmental Research Group ("ERG"), (603) 862-4334

U. N. H., ERG/Recycled Materials Resource Center, (603) 862-4704

Solid Waste Research and Development Permit – Work Sheet

Key Qualifier Question: *Will your project be designed to further the basic principles and practices of solid waste management in New Hampshire through innovative research and development?*

What must you do to apply?

- Obtain a copy of the *Solid Waste Research and Development Permit Application* from the DES Solid Waste Management Bureau, DES Public Information Center, or online at <http://www.des.state.nh.us/sw/swpermits.htm>.
- Identify all parties involved in the project.
- If the project will occur at a facility that holds a permit issued by DES, identify the facility by name, location (including municipality and street), and permit number.
- If the project will occur at a location other than an already permitted facility, identify the non-permitted location by municipality and street address.
- Provide the name(s) and address(es) of all person(s) providing funding for the project, in accordance with NH CODE ADMIN. RULE Env-Wm 312.02(a) (see <http://www.des.state.nh.us/rules/swrules.pdf>).
- Identify the government agency or research institution (such as a public or private university) that will conduct or supervise the project.
- Provide the name(s), address(s), and qualifications of the investigator(s) who will be undertaking the project, including the designation of the lead investigator with primary responsibility for the project.
- Prepare a formal proposal that describes the scope of the project, including the types/quantities of wastes and the process to be studied, a description of how the study relates to the host facility (if already permitted), the anticipated results, and the length of time requested for completion.
- Provide copies of all English language articles or reports (or translated foreign language articles or reports) published in the scientific literature or technical journals that document or otherwise discuss the processes or methods to be investigated in this research.
- Provide a description of how and when the wastes used in the study will be ultimately disposed, how any equipment or property used in the study will be closed, and the schedule for closure activities.
- Provide a written certification by the lead investigator that the project will not contravene the applicable requirements for permitting research and development projects.
- Provide a completed copy of the DES *Personal History Disclosure Form* (see http://www.des.state.nh.us/sw/personal_disclosure.doc) and a DES *Business Concern Disclosure Statement* (see http://www.des.state.nh.us/sw/business_disclosure.doc) for the applicant, lead investigator, and facility operator (see NH CODE ADMIN. RULE Env-Wm 316, "Solid Waste Rules/Performance History Requirements", <http://www.des.state.nh.us/rules/swrules.pdf>).
- Submit a check or money order for the appropriate fee (based on the sliding scale) made payable to the "Treasurer, State of New Hampshire" with the completed application form and all supporting materials to: Solid Waste Management Bureau, Waste Management Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-2925; fax: (603) 271-2456; or online: <http://www.des.state.nh.us/sw/>

What types of projects have used this permit?

- ❖ A project that involves the re-circulation of leachate at a double-lined landfill
- ❖ The use of municipal solid waste combustor ash as an aggregate in asphalt for a public street
- ❖ A research and development project to investigate the use of coal ash in lightweight concrete

If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at tdrew@des.state.nh.us or at (603) 271-3306.

Waste-Derived Product Certification

Introduction: A key component of any integrated solid waste management system is finding beneficial uses and reuses for wastes from residential, commercial, and industrial sources. An unusable waste for one company may represent a valuable component in another's process train or activity. For example, rather than consuming landfill disposal space with old asphalt taken from road construction, that material can be reused as a suitable sub-bed material for the construction of new roads, parking lots, or walkways. Similarly, processed construction and demolition wastes, auto shredder residue, kiln dust, and biosolids incinerator ash can be mixed with soil for use as an alternative daily cover at landfills. Finally, coal ash may be used as a bulking agent for processing wastewater treatment plant sludge. DES provides a mechanism through which to certify these waste-derived products; once certified, they are no longer regulated as solid wastes. A Waste-Derived Product Certification does not represent a permit for a solid waste facility. Rather, it is a certification for a particular product made from a particular waste which means that anyone can use that product as long as the terms of the certification are met. Since this waste-derived product can now be used for other, more beneficial purposes, it is no longer considered a waste until it is ultimately discarded. To obtain certification for a waste-derived product, an application which provides all of the technical information needed to process the request must be filed with the DES Waste Management Division. Once DES issues the Waste-Derived Product Certification, the product is placed on a Certified Waste-Derived Products list maintained by DES (see http://www.des.state.nh.us/sw/waste_derived.htm).

Average number of certifications issued annually: Approximately 4

Fees: None

Estimated processing time after application is deemed complete: 120 days

Certification duration: Indefinite

Certification transferability: Not applicable

Certification modification: Not applicable

Certification renewal: Not applicable

State statute: RSA 149-M ("Solid Waste Management", <http://gencourt.state.nh.us/rsa/html/indexes/149-M.html>)

N. H. Code of Administrative Rules: Env-Wm 3200 ("New Hampshire Solid Waste Rules", <http://www.des.state.nh.us/rules/swrules.pdf>)

Appeals body: Waste Management Council at RSA 21-O:9 ("Department of Environmental Services/Waste Management Council", <http://gencourt.state.nh.us/rsa/html/I/21-O/21-O-9.htm>; see also <http://www.des.state.nh.us/rules/env-wmc200.pdf> and <http://www.des.state.nh.us/councils/#waste>)

Additional Information: N. H. DES, Solid Waste Management Bureau, (603) 271-2925
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876

Waste-Derived Product Certification – Work Sheet

Key Qualifier Question: *Do you or your company plan to produce, distribute, generate, collect, or use a solid waste that possesses useful characteristics which could benefit another processing activity, product, or application, save valuable natural resources and land disposal space, and/or promote energy conservation?*

What must you do to apply?

- Obtain an *Application to Certify a Waste-Derived Product for Distribution and Use* from the DES Waste Management Division, DES Public Information Center, or access it online at http://www.des.state.nh.us/sw/waste_derived.htm.
- Provide the name, mailing address, and telephone number of the applicant and an official contact (if different).
- If the applicant is a corporation, partnership, or other organization, identify the facility owner, state of incorporation or formation, and business address, and provide a list of all directors, officers, and shareholders (if a corporation), all partners (if a general or limited partnership), or all principals, members, or participants (if another type of organization).
- State whether the application is intended for the production, distribution, generation, collection, or use of a waste-derived product.
- Provide a description of the product and its general use.
- Identify and characterize the waste ingredients used to produce the waste-derived product.
- Identify existing non-waste-derived products that serve the same function.
- Identify the manufacturer of the product and provide the address of its principal place of business.
- Provide a complete description of the production process.
- Identify and describe the source of the waste.
- Describe all Quality Assurance/Quality Control procedures that apply to incoming wastes and to the finished product.
- Identify the markets for the material.
- Provide results of a demonstration to show that the product either performs in a comparable way with a non-waste-derived product, fulfills a need, or otherwise will benefit society.
- Provide results of a demonstration to show that the product does not pose a greater risk to human health and the environment than a comparable non-waste-derived product.
- Provide the results of a demonstration to show that the production process does not pose a greater risk to human health and the environment than a comparable non-waste-derived product.
- Submit three copies of the completed application form (each bearing original signatures) and all supporting materials to: Permitting and Design Review Section, Waste Management Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-2935; fax: (603) 271-2456; or online: <http://www.des.state.nh.us/sw/>

What types of products have already been certified?

- ❖ A 50/50 mixture of processed construction and demolition debris and soil used as an alternative daily cover at lined landfills
- ❖ Crushed glass used in construction projects for pipe bedding, road sub-base, or foundation backfill
- ❖ Cold mix asphalt produced from virgin petroleum contaminated soil taken from a remediation site

If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at tdrew@des.state.nh.us or at (603) 271-3306.

Solid Waste Facility Operator Certification

Introduction: Under RSA 149-M:6, XIII (“Solid Waste Management/Responsibilities”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-6.htm>), DES is responsible for establishing and administering a solid waste facility operator training program to ensure that all solid waste management facilities in New Hampshire are managed by a State-certified operator who complies with the requirements for training and experience specific to that type of facility, as required by RSA 149-M:9, VI (“Solid Waste Management/Permit Required”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-9.htm>). The DES Waste Management Division offers a series of courses on specific topics, followed by a written examination, to attain the following levels of proficiency and certification (see http://www.des.state.nh.us/pcas/opcert_announce.htm):

Certification Type	Certification Level
Collection, storage, and transfer facilities	Level I - Attendant
Processing and treatment facilities	Level II - Operator
Incineration with or without energy recovery	Level III - Advanced Operator
Landfilling	Level IV - Manager

The training programs teach operators to manage a facility safely and efficiently, to recognize hazardous wastes when mixed in the solid waste stream, to properly manage asbestos-containing materials and other “special wastes”, and to operate the facility in a manner that fully complies with RSA 149-M (“Solid Waste Management”, <http://gencourt.state.nh.us/rsa/html/indexes/149-M.html>) and NH CODE ADMIN. RULES Env-Wm 100-300 & 2100-3800 (“Solid Waste Rules”, <http://www.des.state.nh.us/hwrb/swrules.pdf>). An annual calendar of 15 to 20 workshops is available from the DES Waste Management Division in January of each year and is posted on the DES Web site at <http://www.des.state.nh.us/pcas/workshop/>. Courses cover such topics as first aid, legal responsibilities, fire safety, defensive driving, used oil management (see http://www.des.state.nh.us/hwcs/used_oil.htm), composting techniques, incinerator technology, recycling/reclamation of solid wastes, and identification of hazardous wastes (see <http://www.des.state.nh.us/factsheets/hw/hw-11.htm>). A \$50 annual certification fee is required which entitles the operator to attend one or more of the technical workshops offered during the year. Interested parties must register for the courses and examinations in advance, since space is limited and participants are taken on a first-come/first-served basis. Each certified operator must attend at least one workshop each year to fulfill the continuing education requirement of his/her certification. Continuing education is required for certification renewal (see <http://www.des.state.nh.us/pcas/swotapp.pdf>). DES also offers a certification-by-reciprocity to individuals who meet the requirements of Env-Wm 3303.06. The DES Fact Sheet entitled *Solid Waste Operator Training and Certification* provides a brief description of the solid waste operator certification program (see <http://www.des.state.nh.us/factsheets/sw/sw-9.htm>).

Average number of certifications issued annually: Approximately 800 (including renewals)

Fees: \$50 per year

Estimated processing time after examination has been taken and passed: 6-8 weeks

Certification duration: One year

Certificate transferability: Not transferable

Certificate modification: Not applicable

Certificate renewal: Must be renewed annually using the *Renewal Application for Solid Waste Facility Operator Certification* (see <http://www.des.state.nh.us/pcas/swotapp.pdf>)

State statute: RSA 149-M:6, XIII (“Solid Waste Management/Responsibilities”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-6.htm>) and RSA 149-M:7, VI (“Solid Waste Management/Rulemaking”, <http://gencourt.state.nh.us/rsa/html/X/149-M/149-M-7.htm>)

N. H. Code of Administrative Rules: Env-Wm 3300 (“New Hampshire Solid Waste Rules”, <http://www.des.state.nh.us/hwrb/swrules.pdf>)

Appeals body: Waste Management Council at RSA 21-O:9 (“Department of Environmental Services/Waste Management Council”, <http://gencourt.state.nh.us/rsa/html/I/21-O/21-O-9.htm>; see also <http://www.des.state.nh.us/rules/env-wmc200.pdf> and <http://www.des.state.nh.us/councils/#waste>)

Additional information: N. H. DES, Waste Management Division, (603) 271-2928
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876

Solid Waste Facility Operator Certification – Work Sheet

Key Qualifier Question: Do you, or does an employee or an agent currently work or intend to work at a private or public permitted solid waste management facility (landfill, incinerator, recycling facility, transfer station, or composting facility) in the state of New Hampshire?

What must you do to apply? (See <http://www.des.state.nh.us/factsheets/sw/sw-9.htm>)

- Obtain an official *Application for Solid Waste Operator Training and Certification* from the DES Waste Management Division or access it online at <http://www.des.state.nh.us/pcas/certapp.pdf>.
- Indicate the applicant's name, address, type and level of certification sought, proof of qualifications (prior work at solid waste management facilities), and level of education. Include background documents from other states or companies where prior work experience or training occurred, if certification by reciprocity is being sought.
- Submit a check or money order with the application in the amount of \$50 made payable to "Treasurer, State of New Hampshire" together with the application and all supporting documents to: Solid Waste Operator Training and Certification Program, Waste Management Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-2928; fax: (603) 271-2456; or online: <http://www.des.state.nh.us/pcas/opcert.htm>
- The Waste Management Division will review the application for completeness and determine whether the applicant qualifies for the certification program.
- If the application is complete and the applicant qualifies, DES will approve the application, schedule the applicant to attend the next available operator training program, and grant the applicant interim certification pursuant to NH CODE ADMIN. RULE Env-Wm 3303.04 (see <http://www.des.state.nh.us/rules/swrules.pdf>).
- If the application is denied, the applicant will be notified by mail as to the reasons for denial.
- Successful applicants must attend the scheduled semi-annual training sessions and satisfactorily pass the examination (with a score of at least 70%) to receive certification at the type and level desired.
- To register for workshops online, see <http://www.des.state.nh.us/pcas/workshop/registration.htm>
- The operator training certificate is valid for one year following its issuance. An application for an annual renewal must be submitted to DES (see <http://www.des.state.nh.us/pcas/swotapp.pdf>) not less than 15 days or more than 90 days prior to the expiration date of the applicant's current operator certification. Renewal applications should signify any desire to change the level or type of certification, and must be accompanied by a check or money order for \$50 (or \$75 if filed after certification has expired) made payable to "Treasurer, State of New Hampshire".

What types of operators require this certification?

- ❖ An individual who will be in responsible charge of a secure landfill, an incinerator ash landfill, an incinerator, a transfer station, a recycling facility, or a composting operation
- ❖ An individual who will be in responsible charge of a monofill for brush and stumps only, or a permitted research and development facility, or who will have supervisory responsibilities at such facilities
- ❖ An individual who will work at a solid waste facility, but who will not be in responsible charge or have any supervisory responsibilities

If there are any questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, DES Public Information and Permitting Unit, at tdrew@des.state.nh.us or at (603) 271-3306.

